Letter to the editor to the article "Cochlear implantation in children with congenital and noncongenital unilateral deafness: a case series" by Dayse Ta´ Vora-Vieira and Gunesh P. Rajan. Otology Neurotology.

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DOI: https://doi.org/10.1097/MAO.0000000000000805

ARTICLE COVER SHEET

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Template version : 3.8
Revised: 08/10/2012

Article : MAO50015
Creator : tcabusas
Date : 6/10/2015
Time : 13:11:49
Number of Pages (including this page) : 3

Otology & Neurotology
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Letter to the Editor

AQ1 LETTER TO THE EDITOR TO THE ARTICLE ''COCHLEAR IMPLANTATION IN CHILDREN WITH CONGENITAL AND NONCONGENITAL UNILATERAL DEAFNESS: A CASE SERIES'' BY DAYSE TÁVORA-VIEIRA AND GUNESH P. RAJAN. OTOLOGY & NEUROTOLOGY. 2015;36:235–9

To the Editor: I read with great interest, but also with some concern, the report of Távora-Vieira and Rajan (1) on cochlear implantation (CI) in children with single-sided deafness (SSD). The authors report on four children who received a CI because of SSD. Although one case of an older child with postlingually acquired SSD fits well in a series of case reports of such children showing benefit, three cases with congenital SSD fall into a category in which CI provision has not yet been reported. Cochlear implantations for SSD have become widely accepted in adults and possibly also in older children with postlingually acquired SSD. However, there are many open and unresolved questions about providing CI for the diverse group of younger children with congenital SSD. Our basis of knowledge about these special cases may require a very careful consideration of all possible aspects when making a decision to implant such children. I am missing any discussion concerning two aspects of CI provision for this special group in the report of Távora-Vieira and Rajan that I consider to be major in this context. These two aspects are stigmatization and unwanted prevention of natural processes of compensation.

Even though there is strong evidence that congenital SSD constitutes an auditory handicap, many experienced audiologists and otologists know of patients who became aware of their congenital SSD only through school screening programs, at puberty, or even as adults. Such patients are encountered less often with the advent of early hearing screenings and, today, SSD is usually diagnosed before entry into school. The lesson from those patients with late diagnosis of SSD is the relativity of the auditory handicap. As a rule, persons with SSD who were identified later did not consider themselves as handicapped. Moreover, they were also not stigmatized in any way. Children with CI or even with hearing aids are unavoidably marked. Stigmas have their own social and psychological negative effects, particularly in older children or during puberty. We simply do not know if any beneficial effect of CI in congenital SSD counterweighs the possibly harmful effects of stigmatization. It is, therefore, essential to include the aspect of stigmatization systematically in any information, indication, or trial of CI for congenital SSD.

Another point that these late detected subjects with SSD often demonstrated was relatively good compensatory behavior. They learned and trained their auditory system to make maximum use of single-sided acoustic clues. Evidence cited by Távora-Vieira and Rajan points to the development of an early adaptation of the auditory pathways (2,3). For one thing, this may be a major reason why late CI in congenital SSD may not be beneficial. For another, the point of early implantation is to make near-normal development of a binaural system possible. However, enabling such near-normal development may, at the same time, prevent the development of compensatory mechanisms. If the child chooses later to stop using the CI, because of stigmatization or any other reason, then that child may experience an acquired rather than a compensated congenital SSD. Again, we do not know if early help to develop bilateral auditory processes outweighs the development of natural compensatory mechanisms in the long run. It is essential to acknowledge and report on these uncertainties when supporting the use of CI for congenital SSD or when running trials including such patients.

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The author discloses no conflicts of interest.

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